CLAIMS:

1. A method for selecting an alterative path upon detection of a dead gateway comprising the steps of:

sending a first TCP packet of data from an application of a sender host to a receiver host through a first gateway;

failing to receive an acknowledgment of received data from said receiver host;

deleting an ARP entry associated with said first gateway in said sender host; and

selecting an alternative path to send said first TCP packet of data from said sender host to said receiver host through a second gateway in a routing table in said sender host.

2. The method as recited in claim 1, wherein said first gateway is a first-hop away from said sender host, wherein said second gateway is a first-hop away from said sender host.

3. The method as recited in claim 1, wherein said first TCP packet of data is sent from said sender host to said receiver host through said first gateway a consecutive number of times, wherein said sender host fails to receive an acknowledgment of received data from said receiver host each time said first TCP packet of data is sent to said receiver host.

4. The method as recited in claim 1, wherein said routing table in said sender host is located in a network layer of a TCP/IP protocol suite.

5. The method as recited in claim 4, wherein said network layer is an IP layer.

6. The method as recited in claim 1 further comprising the step of:

establishing a new communication using said first gateway by said application of said sender host.

7. The method as recited in claim 1 further comprising the step of:

establishing a new communication using said first gateway by a new application of said sender host

8. The method as recited in claim 6 further comprising the step of:

sending an ARP request to said first gateway by said sender host.

9. The method as recited in claim 8, wherein said ARP request is sent from said sender host to said first gateway a consecutive number of times.

10. The method as recited in claim 8, wherein if said sender host receives a response from said first gateway then said first gateway is operative, wherein if said sender host receives a response from said first gateway then said application of said sender host sends a second TCP packet of data using said first gateway if said new communication is a TCP communication.

11. The method as recited in claim 8, wherein if said sender host receives a response from said first gateway then said first gateway is operative, wherein if said sender host receives a response from said first gateway then said application of said sender host sends a non-TCP packet of data using said first gateway if said new communication is a non-TCP communication.

12. The method as recited in claim 8, wherein if said sender host does not receive a response from said first gateway then said first gateway is inoperative, wherein if said sender host does not receives a response from said first gateway then the method further comprises the step of:

selecting an alternative path through an alterative gateway than said first gateway in said routing table in said sender host.

13. The method as recited in claim 12, where said application of said sender host sends a non-TCP packet of data using said alternative gateway if said new communication is a non-TCP communication.

14. The method as recited in claim 12, where said application of said sender host sends a second TCP packet of data using said alternative gateway if said new communication is a TCP communication.

15. The method as recited in claim 12 further comprising the step of:

marking all routes that use said first gateway to a lower priority level from an original priority level in said routing table in said sender host.

16. The method as recited in claim 15, wherein said all routes that use said first gateway return to their original priority level after a duration of time.

17. The method as recited in claim 7 further comprising the step of:

sending an ARP request to said first gateway by said sender host.

18. The method as recited in claim 17, wherein said ARP request is sent from said sender host to said first gateway a consecutive number of times.

19. The method as recited in claim 17, wherein if said sender host receives a response from said first gateway then said first gateway is operative, wherein if said sender host receives a response from said first gateway then said new application of said sender host sends a second TCP packet of data using said first gateway if said new communication is a TCP communication.

20. The method as recited in claim 17, wherein if said sender host receives a response from said first gateway then said first gateway is operative, wherein if said sender host receives a response from said first gateway then said new application of said sender host

sends a non-TCP packet of data using said first gateway if said new communication is a non-TCP communication.

21. The method as recited in claim 17, wherein if said sender host does not receive a response from said first gateway then said first gateway is inoperative, wherein if said sender host does not receives a response from said first gateway then the method further comprises the step of:

selecting an alternative path through an alterative gateway than said first gateway in said routing table in said sender host.

22. The method as recited in claim 21, where said new application of said sender host sends a non-TCP packet of data using said alternative gateway if said new communication is a non-TCP communication.

23. The method as recited in claim 21, where said new application of said sender host sends a second TCP packet of data using said alternative gateway if said new communication is a TCP communication.

24. The method as recited in claim 21 further comprising the step of:

marking all routes that use said first gateway to a lower priority level from an original priority level in said routing table in said sender host.

25. The method as recited in claim 24, wherein said all routes that use said first gateway return to their original priority level after a duration of time.

26. A system for selecting an alternative path upon detection of a dead gateway comprising:

a first and second network connected together via a first gateway;

at least one host electrically coupled to said first network, wherein one of said at least one host coupled to said first network is a sender host;

at least one host electrically coupled to said second network, wherein one of said at least one host coupled to said second network is a receiver host;

wherein said sender host further comprises:

circuitry for sending a first TCP packet of data from an application of said sender host to said receiver host through said first gateway, wherein said sender host fails to receive an acknowledgment of received data from said receiver host;

circuitry for deleting an ARP entry associated with said first gateway in said sender host; and

circuitry for selecting an alternative path to send said first TCP packet of data to said receiver host through a second gateway in a routing table in said sender host.

27. The system as recited in claim 26, wherein said first gateway is a first-hop away from said sender host, wherein said second gateway is a first-hop away from said sender host.

28. The system as recited in claim 26, wherein said first TCP packet of data is sent from said sender host to said receiver host through said first gateway a consecutive number of times, wherein said sender host fails to receive an acknowledgment of received data from said receiver host each time said first TCP packet of data is sent to said receiver host.

29. The system as recited in claim 26, wherein said routing table in said sender host is located in a network layer of a TCP/IP protocol suite.

30. The system as recited in claim 29, wherein said network layer is an IP layer.

31. The system as recited in claim 26, wherein said sender host further comprises:

circuitry for establishing a new communication using said first gateway by said application of said sender host.

32. The system as recited in claim 26, wherein said sender host further comprises:

circuitry for establishing a new communication using said first gateway by a new application of said sender host

33. The system as recited in claim 31, wherein said sender host further comprises:

circuitry for sending an ARP request to said first gateway by said sender host.

34. The system as recited in claim 33, wherein said ARP request is sent from said sender host to said first gateway a consecutive number of times.

35. The system as recited in claim 33, wherein if said sender host receives a response from said first gateway then said first gateway is operative, wherein if said sender host receives a response from said first gateway then said application of said sender host sends a second TCP packet of data using said first gateway if said new communication is a TCP communication.

36. The system as recited in claim 33, wherein if said sender host receives a response from said first gateway then said first gateway is operative, wherein if said sender host receives a response from said first gateway then said application of said sender host sends a non-TCP packet of data using said first gateway if said new communication is a non-TCP communication.

37. The system as recited in claim 33, wherein if said sender host does not receive a response from said first gateway then said first gateway is inoperative, wherein if said sender host does not receives a response from said first gateway then said sender host further comprises:

circuitry for selecting an alternative path through an alterative gateway than said first gateway in said routing table in said sender host.

38. The system as recited in claim 37, where said application of said sender host sends a non-TCP packet of data using said alternative gateway if said new communication is a non-TCP communication.

39. The system as recited in claim 37, where said application of said sender host sends a second TCP packet of data using said alternative gateway if said new communication is a TCP communication.

40. The system as recited in claim 37, wherein said sender host further comprises:

circuitry for marking all routes that use said first gateway to a lower priority level from an original priority level in said routing table in said sender host.

41. The system as recited in claim 40, wherein said all routes that use said first gateway return to their original priority level after a duration of time.

42. The system as recited in claim 32, wherein said sender host further comprises:

circuitry for sending an ARP request to said first gateway by said sender host.

43. The system as recited in claim 42, wherein said ARP request is sent from said sender host to said first gateway a consecutive number of times.

44. The system as recited in claim 42, wherein if said sender host receives a response from said first gateway then said first gateway is operative, wherein if said sender host

receives a response from said first gateway then said new application of said sender host sends a second TCP packet of data using said first gateway if said new communication is a TCP communication.

45. The system as recited in claim 42, wherein if said sender host receives a response from said first gateway then said first gateway is operative, wherein if said sender host receives a response from said first gateway then said new application of said sender host sends a non-TCP packet of data using said first gateway if said new communication is a non-TCP communication.

46. The system as recited in claim 42, wherein if said sender host does not receive a response from said first gateway then said first gateway is inoperative, wherein if said sender host does not receives a response from said first gateway then said sender host further comprises:

circuitry for selecting an alternative path through an alterative gateway than said first gateway in said routing table in said sender host.

47. The system as recited in claim 46, where said new application of said sender host sends a non-TCP packet of data using said alternative gateway if said new communication is a non-TCP communication.

48. The system as recited in claim 46, where said new application of said sender host sends a second TCP packet of data using said alternative gateway if said new communication is a TCP communication.

49. The system as recited in claim 46, wherein said sender host further comprises:

circuitry for marking all routes that use said first gateway to a lower priority level from an original priority level in said routing table in said sender host.

50. The system as recited in claim 49, wherein said all routes that use said first gateway return to their original priority level after a duration of time.

51. A computer program product having a computer readable medium having computer program logic recorded thereon for selecting an alternative path upon detection of a dead gateway, comprising:

programming operable for sending a first TCP packet of data from an application of a sender host to a receiver host through a first gateway, wherein said sender host fails to receive an acknowledgment of received data from said receiver host;

programming operable for deleting an ARP entry associated with said first gateway in said sender host; and

programming operable for selecting an alternative path to send said first TCP packet of data from said sender host to said receiver host through a second gateway in a routing table in said sender host.

52. The computer program product as recited in claim 51, wherein said first gateway is a first-hop away from said sender host, wherein said second gateway is a first-hop away from said sender host.

53. The computer program product as recited in claim 51, wherein said first TCP packet of data is sent from said sender host to said receiver host through said first gateway a consecutive number of times, wherein said sender host fails to receive an acknowledgment of received data from said receiver host each time said first TCP packet of data is sent to said receiver host.

54. The computer program product as recited in claim 51, wherein said routing table in said sender host is located in a network layer of a TCP/IP protocol suite.

55. The computer program product as recited in claim 54, wherein said network layer is an IP layer.

56. The computer program product as recited in claim 51 further comprises:

programming operable for establishing a new communication using said first gateway by said application of said sender host.

57. The computer program product as recited in claim 51 further comprises:

programming operable for establishing a new communication using said first gateway by a new application of said sender host

58. The computer program product as recited in claim 56 further comprises:

programming operable for sending an ARP request to said first gateway by said sender host.

59. The computer program product as recited in claim 58, wherein said ARP request is sent from said sender host to said first gateway a consecutive number of times.

60. The computer program product as recited in claim 58, wherein if said sender host receives a response from said first gateway then said first gateway is operative, wherein if said sender host receives a response from said first gateway then said application of said sender host sends a second TCP packet of data using said first gateway if said new communication is a TCP communication.

61. The computer program product as recited in claim 58, wherein if said sender host receives a response from said first gateway then said first gateway is operative, wherein if said sender host receives a response from said first gateway then said application of said sender host sends a non-TCP packet of data using said first gateway if said new communication is a non-TCP communication.

62. The computer program product as recited in claim 58, wherein if said sender host does not receive a response from said first gateway then said first gateway is inoperative, wherein if said sender host does not receives a response from said first gateway then the computer program product further comprises:

programming operable for selecting an alternative path through an alterative gateway than said first gateway in said routing table in said sender host.

63. The computer program product as recited in claim 62, where said application of said sender host sends a non-TCP packet of data using said alternative gateway if said new communication is a non-TCP communication.

64. The computer program product as recited in claim 62, where said application of said sender host sends a second TCP packet of data using said alternative gateway if said new communication is a TCP communication.

65. The computer program product as recited in claim 62 further comprises:

programming operable for marking all routes that use said first gateway to a lower priority level from an original priority level in said routing table in said sender host.

66. The computer program product as recited in claim 65, wherein said all routes that use said first gateway return to their original priority level after a duration of time.

67. The computer program product as recited in claim 57 further comprising the step of:

programming operable for sending an ARP request to said first gateway by said sender host.

68. The computer program product as recited in claim 67, wherein said ARP request is sent from said sender host to said first gateway a consecutive number of times.

69. The computer program product as recited in claim 67, wherein if said sender host receives a response from said first gateway then said first gateway is operative, wherein if said sender host receives a response from said first gateway then said new application of said sender host sends a second TCP packet of data using said first gateway if said new communication is a TCP communication.

70. The computer program product as recited in claim 67, wherein if said sender host receives a response from said first gateway then said first gateway is operative, wherein if said sender host receives a response from said first gateway then said new application of said sender host sends a non-TCP packet of data using said first gateway if said new communication is a non-TCP communication.

71. The computer program product as recited in claim 67, wherein if said sender host does not receive a response from said first gateway then said first gateway is inoperative, wherein if said sender host does not receives a response from said first gateway then the computer program product further comprises:

programming operable for selecting an alternative path through an alterative gateway than said first gateway in said routing table in said sender host.

72. The computer program product as recited in claim 71, where said new application of said sender host sends a non-TCP packet of data using said alternative gateway if said new communication is a non-TCP communication.

73. The computer program product as recited in claim 71, where said new application of said sender host sends a second TCP packet of data using said alternative gateway if said new communication is a TCP communication.

74. The computer program product as recited in claim 71 further comprises:

programming operable for marking all routes that use said first gateway to a lower priority level from an original priority level in said routing table in said sender host.

75. The computer program product as recited in claim 74, wherein said all routes that use said first gateway return to their original priority level after a duration of time.